



€100m project to develop low power edge AI microcontroller

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The €100m StorAIge project led by STMicroelectronics will deliver 83 demonstrations of low power edge AI technologies, microcontrollers and applications

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A European project is aiming to develop the next generation of edge AI microcontrollers and software using low power FD-SOI and phase change technology.

The main aim of the StorAIge project is to setup a world-class manufacturing platform for silicon with Artificial Intelligence capabilities, prototyping high performance, FD-SOI low power and secured & safety components enabling competitive AI at the edge applications.

The project is targeting secure chipset and solutions for the automotive and industrial markets with very efficient memories and high computing power targeting 10 Tops per Watt.

The three year project is led by STMicroelectronics, which earlier this year bought edge AI startup Cartesiam and has now integrated those algorithms into its STM32 family of microcontrollers. ST will be working with emmtrix Technologies in Germany which develops tools for parallel software on microcontrollers.

- [STMicroelectronics acquires Cartesiam for edge AI tool](#)
- [Code free machine learning tool for edge IoT equipment](#)

The project aims to show state-of-the-art improvements across the value chain. The silicon-borne components developed in the project will allow large volume application deployment and demonstrations will be done during the timeframe of the project. And particularly, a mass market MCU product family will be enlarged to enable new era of autonomous edge devices.

This will be used in 83 demonstrations from materials, silicon process, methods and technics, IP blocks to end up with use cases through devices and products that address main applications in Automotive, Industrial/Consumer and Secure.

The demonstrations on material, silicon process, methods and techniques will directly enable to design and manufacture advanced IP blocks (e-memory, secure HW and SW, RF,...) which in turn will enable AI systems and applications that are illustrated by use cases.

Other demonstrations will include AI for wind turbine monitoring, industrial plant monitoring, a low resolution time of flight sensor for gesture recognition and an self-trained ultrasound hand recognition systems. The project also aims to develop a secure operating system for edge AI, IR motion presence detector, industrial vision sensor, anomaly detector for patient monitors and a smart digital controller for switch mode power supplies and motor drivers as well as the integration of an AI algorithm into the washing machine software stack

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